



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,337	07/20/2001	Zuoxing Yu	CSA 20143	3639

7590 05/16/2003

Timothy E. Nauman, Esq.
Fay, Sharpe, Fagan,
Minnich & McKee, LLP
1100 Superior Avenue, 7th Floor
Cleveland, OH 44114-2518

EXAMINER

GOFF II, JOHN L

ART UNIT

PAPER NUMBER

1733

DATE MAILED: 05/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/910,337

Applicant(s)

YU ET AL.

Examiner

John L. Goff

Art Unit

1733

-- Th MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) 7,21,24 and 31-48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-20,22,23 and 25-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s). <u>6</u> . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2,4</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, subspecies IA in Paper No. 5 is acknowledged. The traversal is on the ground(s) that both subspecies IA and IB belong to general species I and therefore should be examined. This is not found persuasive because subspecies IA and subspecies IB are directed to two different thermoplastics that are mutually exclusive and patentably distinct.

The requirement is still deemed proper and is therefore made FINAL.

It is noted the restriction requirement required further election between subspecies IIA and IIB and subspecies IIIA and IIIB. Applicants' representative elected subspecies IIB and IIIB with traverse in a telephone conversation on 5/13/03. Applicant's representative confirmed the election of subspecies IA, IIB, and IIIB is readable on claims 1-6, 8-20, 22, 23, and 25-30 .

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

Art Unit: 1733

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 2, 5-6, 8, 9, 12-16, 19, 20, 22, 23, 25, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards (5,183,613) in view of Cook (U.S. Patent 5,415,822).

Edwards is directed to a process for forming a glass run channel for use in an automotive application. Edwards teaches a composite extrusion comprising a channel member made of thermoset elastomer such as EPDM and an abrasion resistant layer made of thermoplastic material such as a polyolefin. Edwards teaches forming the composite extrusion by co-extruding the channel member (at a temperature of 60-150 °C) and abrasion resistant layer (at a temperature greater than 200 °C) such that the abrasion resistant layer contacts the channel member forming a 0.2 to 0.4 mm abrasion resistant layer on the channel member. Edwards teaches curing the channel member after co-extruding the composite member (Figure 1 and Column 1, lines 9-14 and Column 6, lines 53-61 and Column 8, lines 36-44 and Column 9, lines 11-14 and Column 11, lines 24-33 and 45-51 and Column 12, lines 1-8 and 12-15). Edwards is silent as to a specific recitation for using as the abrasion resistant layer a crosslinkable polyolefin. However, it is noted Edwards is directed to using general polyolefins known to one in the art. One of ordinary skill in the art at the time the invention was made would have readily appreciated using as the polyolefin taught by Edwards a crosslinkable polyolefin, i.e. a polyolefin crosslinked by means such as moisture, as it was well known in the art to use a crosslinkable polyolefin as the abrasion resistant layer as shown for example by Cook.

Art Unit: 1733

Cook is directed to manufacturing composite extrusions for use as glass run channels. Cook teaches a composite extrusion comprising a main body member made of thermoset material such as EPDM and an abrasion resistant layer made of thermoplastic material such as polyolefin which can be crosslinked by peroxides, moisture, UV, and other systems. Cook teaches forming the composite extrusion by extruding the main body member (at a temperature of 80-150 °C), curing the main body member (at a temperature of 180-250 °C), and extruding on top of the main body member the abrasion resistant layer (at a temperature greater than 140-250 °C) such that the main body member and abrasion resistant layer form a bonded composite (Figure 1 and Column 1, lines 8-14 and Column 4, lines 15-24, 30-34, and 37-40 and Column 5, lines 7-36).

Regarding claims 5, 6, 11, and 20, one of ordinary skill in the art at the time the invention was made would be readily expected to determine the optimal extrusion and curing temperatures as it is well known in the art to optimize these parameters without requiring any other than routine experimentation.

5. Claims 3, 4, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards and Cook as applied above in paragraph 4, and further in view of Scott et al. (U.S. Patent 3,646,155).

Edwards and Cook teach all of the limitations in claims 3, 4, 17, and 18 as applied above except for specific teaching of using as the abrasion resistant layer a silane grafted polyolefin that is crosslinked in a steam bath. However, as shown above Cook suggests using a moisture crosslinkable polyolefin as the abrasion resistant layer. One of ordinary skill in the art at the time the invention was made would have readily appreciated using as the moisture crosslinkable

Art Unit: 1733

polyolefin taught by Edwards as modified by Cook a silane grafted polyolefin crosslinked in a steam bath as suggested by Scott et al. to enable crosslinking of the polyolefin under less critical crosslinking conditions than those which are normally present in conventional crosslinking techniques.

Scott et al. are directed to crosslinking polyolefins. Scott et al. teach crosslinking the polyolefins with a silane reactant in a steam bath wherein crosslinking of the polyolefin with the silane enables crosslinking of the polyolefin under less critical crosslinking conditions than those which are normally present in conventional crosslinking techniques (Column 1, lines 22-24 and 54-61 and Column 3, lines 50-51 and 74-75 and Column 4, lines 1-11 and Column 5, lines 14-17).

6. Claims 10, 11, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards and Cook as applied above in paragraph 4, and further in view of Hayashi (U.S. Patent 6,099,676).

Edwards and Cook teach all of the limitations in claims 10, 11, 26, and 27 as applied above except for specific teaching of using a preformed, i.e. tape, abrasion resistant layer. One of ordinary skill in the art at the time the invention was made would have readily appreciated using as the abrasion resistant layer taught by Edwards as modified by Cook a preformed abrasion resistant layer as suggested by Hayashi such that the abrasion resistant layer could be formed at one location and laminated to the channel member in another location at a later time.

Hayashi is directed to a method of forming a glass run channel. Hayashi teaches a composite extrusion comprising a channel member made of EPDM and an abrasion resistant layer made of thermoplastic material such as a polyolefin. Hayashi teaches forming the

Art Unit: 1733

composite extrusion by extruding the channel member and contacting a preheated abrasion resistant tape, i.e. preform, with the channel member such that the abrasion resistant layer contacts the channel member to form a composite extrusion. Hayashi further teaches continuously pressing the abrasion resistant tape on the channel member using a roller, i.e. lamination wheel (Figures 1, 7, and 8 and Column 1, lines 21-31 and Column 2, lines 14-17, 22-26, 43-45, and 53-55).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **703-305-7481**. The examiner can normally be reached on M-Th (8 - 5) and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

John L. Goff

John L. Goff
May 13, 2003

Jeff H. Aftergut
JEFF H. AFTERGUT
PRIMARY EXAMINER
GROUP 1300